PAPERS READ.

ROUGH NOTES ON THE NATURAL HISTORY OF THE CLAREMONT ISLANDS.

BY GERVASE F. MATHEW, R.N., F.L.S., F.Z.S., F.R.G.S., &c.

At three o'clock on the afternoon of the 12th of last month, "H.M.S. Espiègle" anchored off No. 5 (on the Admiralty Chart) of a group of small islands, called the Claremont Islands, lying inside the Great Barrier Reef, between Cooktown and Cape York, and in latitude 13·42 south. The group consists of eight principal islands, with a few islets, No. 1 being the farthest to the south in latitude 13·57 south, and just off Point Claremont, while No. 8, the farthest north, is in latitude 13·16 south, so that they extend for some 41 miles from north to south. They are low flat islands, more or less covered with scrubby brushwood, and with a few trees in the centre, and some of them are fringed with a belt of mangrove bushes. At the time of our visit these islands were looking beautifully green.

No. 5 having no name we will call "Espiègle" Island. It is one of the smallest of the group, being little more than one and a half or two miles in circumstance, and is covered with high grass, with patches of low bushes and a few trees at one corner of it. A sloping sandy beach runs round the greater part of it, and at low tide a large tract of coral flats and reefs, extending for several miles on each side of the islands is uncovered, and affords fine feeding grounds for numerous species of shore birds.

Soon after the ship anchored I landed in company with one of my messmates—Lieutenant Allenby—to explore the island and

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see what it produced in the way of sport or natural history. Allenby took his gun, but I contented myself with a butter fly net and a few collecting boxes. As we approached the island we noticed that most of the low bushes were covered with white and blue reef herons, as was also the beach, while feeding upon the reefs, which were then uncovered, were a multitude of shore birds. Some of the latter, as we drew nearer, became suspicious and took wing, and with loud cries moved off to a more distant point along the reef. Among them I recognized the familiar notes of the curlew, whimbrel, grey and golden plover, &c. Directly we landed Allenby went off after the birds on the reef, while I strolled up towards the bushes to look for Lepidoptera, &c. The reef herons were quite tame and permitted me to approach within a short distance before they took wing. While watching them a bevy of quail rose suddenly at my feet and quite startled me with the whirr of their wings as they flew off at an amazing pace for a short distance and then alighted abruptly among the high grass; and I almost regretted that I had not brought a gun.

There were many interesting plants growing a little way above high water mark, and some of them were in flower, but most of them, I am sorry to say, were unknown to me. However, there appeared to be several species of *Mesembryanthemum* and *Euphorbia*, and a plant which was exactly similar to, if not identical with, our English Salsola kali. But the commonest plant was a kind of Convolvulus, with fine pinkish-purple flowers and vigorous stems, which, in some instances, were to be observed creeping over the sand for sixty or eighty feet in a perfectly straight line. It was frequent all over the island, and is a plant which seems to flourish upon all the islands I have visited in the Western Pacific, for I have met with it commonly at Fiji, Tonga, Samoa, the New Hebrides, &c. It is a favourite food of the larve of *Protoparce distans*, a moth which is closely identical to *Sphinx convolvuli*.

A leguminous plant, much resembling our familiar garden scarlet runner, was creeping in profusion over the low bushes, and numbers

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of a small dark metallic-blue Lycana were disporting themselves about it. They were in such swarms, and attached themselves so exclusively to this plant, that I suspected that it formed the food of their larvæ, so waited a bit and watched them, and presently observed a female settle upon one of the clusters of flower buds, and after crawling backwards and forwards once or twice over them and touching each individual bud with antennæ as if looking out for a suitable spot, she thrust her abdomen between two of the buds and deposited an egg at their base. After this I had no difficulty in finding larvæ of all sizes feeding in the flowers ; the petals of all those attacked withered and drooped so that they could easily be detected. This Lycana was the most abundant butterfly upon the island, but several other species were taken, as well as a few small moths, a list of which, as far as I have been able to determine, will be found at the end of this paper.

At six o'clock Allenby rejoined me. He had bagged twenty plovers and sandpipers of different kinds, and said that they were remarkably wild and that it was no easy matter to get within shot of them. On our way back to the ship a tremendous white shark followed the boat, and at one time I really thought it was going to attack us. It was a formidable looking monster, and must have been quite ten or twelve feet long.

The next day, 13th April, the ship remained at anchor all day off the island exercising at various drills &c., and I was able to get on shore directly after breakfast. I took a gun, butterfly net and some lunch, and having deposited the heavy gear beneath the shadiest tree, put some cartridges in my pocket and proceeded to beat the island for quail, &c. This took me about an hour, when I returned to the tree and rested for half an hour or so, and then went for a entomological ramble, returning to my tree again for lunch and rest, and so on until four-o'clock, when I went on board. The time passed very quickly and pleasantly, though it was rather hot tramping through the long grass in a blazing sun. While eating my lunch, or dozing in the shade, the herons pitched in the tree above or upon the bushes on each side, and seemed to scrutinize

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me very intently, and passed remarks to each other on my appearance and occupation in dismal croaks. I append a list of the birds met with.

White Nutmeg Pigeon (*Myristicivora spilorrhoa*, G. R. Gray.) Only one seen and shot. It was a young bird apparently not more than a couple of weeks from the nest, and much smaller than examples obtained at the North Barnard Islands in December 1882. Its plumage too, as far as I can remember, is slightly different, though this may perhaps be due to its youth.

Northern Swamp Quail (Synoicus cervinus, Gould.) These little birds were tolerably plentiful lying in the high grass, but were difficult to flush, and generally allowed themselves to be almost trodden upon before they rose. Eight couple were bagged, and double that number might have been obtained had I had the services of a good steady retriever. Unless I marked the exact spot where the bird fell, and ran to it at once, it was almost certain to be lost, as they were so difficult to find in the thick grass. They usually rose five or six at a time, but it was quite out of the question firing a double shot as one of the birds would certainly have been lost. They varied a good deal in size, but I think I am right in referring them to the above species. They were excellent eating.

Oyster Catcher (*Hæmatopus longirostris*, Vieill.) There were several small flocks of these handsome birds. They looked very conspicuous when flying among a host of other shore birds. One I shot was a remarkably fine heavy specimen.

Grey Plover (Squatarola helvetica, Linn.) Common.

Golden Plover (*Charudrias orientalis*, Temm. et Schleg.) Numerous. This is decidedly much smaller than the European species, and by no means such a delicately flavored bird. All those that I have eaten have been obtained upon the sea shore, or upon coral reefs, where the nature of their food probably imparts a fishy flavour to their flesh. BY GERVASE F. MATHEW, R.N., F.L.S., F.Z.S., F.R.G.S., &C. 255

Red-capped Dottrel (Aegialophilus ruficapillus, Temm) Common.

Allied Dottrel. (*Ochthodromus inornatus*. Gould.) This beautiful little plover, with its bright rufous head, and rufous band across the chest, was plentiful and conspicuous among the other species.

Barred-rumped Godwit. (*Limosa uropygialis*. Gould.) Common. Very near the European bar-tailed Godwit.

Curlew Sandpiper. (Tringa subarquata. Temm.) Common, and in breeding plumage.

Little Stint. (Tringa albescens. Temm.) A few seen.

Knot. (*Tringa canutus*. Linn.) Several shot, in breeding plumage.

Greenshank. (Glottis canescens. Gmel.) Common.

Grey-rumped Sandpiper. (Gambetta pulverulentus. Müll.) Numerous, but very shy and noisy.

Australian Curlew. (Numerius cyanopus. Vieill.) This fine species was not common, and was so wild that it was useless to try and get a shot at it. Its size and unusually long bill at once distinguish it from its European cousin, besides which its cry is slightly different.

Australian Whimbrell. (*Numenius uropygialis*. Gould.) Common. This is decidedly smaller than the European bird though its call note is identical.

White and Blue Reef Herons. (Demigretta jugularis. Forst.) (Demigretta Greyi. Gray.) These were the most numerous birds upon the island, and I believe them to be one and the same species, for I have constantly seen them in all stages of plumage passing from blue to white. There is no difference in their size or habits, and they are always found together. Unfortunately I have never been able to find them breeding, though there were

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plenty of nests upon the low shrubs on this island. Mr. Magillivray, quoted by Gould in his "Birds of Australia," is of opinion that the two forms are specifically distinct, and states that he has never seen any exhibiting a change from blue to white, or *vice versa*, and upon Dugong Island he had seen the young white from the nest. I have seen them in this intermediate state of plumage at the New Hebrides, Solomon Islands, Tonga and elsewhere, and I do not think that the blue are adult birds.

Silver Gull. (Bruchigavia Jamesonii var. Gouldi. Bonap.) Only a pair of these birds were noticed, and they were very vociferous as I approached a certain point of the island, flying to and fro overhead in a very excited manner, as if they had a nest or young close at hand However, a careful search failed to disclose any. At times they came so near that I was able to observe them minutely. They were certainly larger than those to be seen every day in Sydney Harbour, and their beaks were of a dark brownish red, almost black at the tip, but otherwise I could detect no difference.

Caspian Tern. Sylochelidon Caspia. Brehm.) A pair seen. Torres Straits Tern. (Thalasseus cristatus. Steph.) Common.

Little Tern (*Sternula nereis*. Gould.) Several of these elegant little birds were observed and one shot. They were perfectly fearless and darted down upon their prey within a few yards of the spot upon which I stood.

Pelican (*Pelccanus conspicillatus*. Temm.) Only one seen, and a magnificent bird it looked as it sat in solitary grandeur far out on the coral flats, its black and white plumage most conspicuous in the bright sun. I was anxious to obtain it, but it was very wary, and would not permit me to approach within a-half mile of it.

Little Cormorant (*Phalacrocorax melanoleucus*. Vieill.) Many seen flying over the island.

Amongst the scrub there were honey-eaters, fly catchers, two kinds of kingfishers, and several other species unknown to me; and from one of the trees I shot a pair of large handsome doves. BY GERVASE F. MATHEW, R.N., F.L.S., F.Z.S., F.R.G.S., &C. 257

In addition to the shore birds enumerated above three or four examples were shot of a bird which to me appeared to be identical with the European dunlin (*Tringa variabilis.*) They were in summer dress. I was surprised to find so many of these birds still in their summer plumage at this time of the year, when I should have imagined that they would have been in their winter dress.

LIST OF LEPIDOPTERA OBSERVED AT CLAREMONT ISLANDS.

Rhopalocera.

Tachyris Ada. Only one example seen, but traces of their larvæ were very apparent upon a shrub with light pea green and slightly publicated sub-ovate leaves, possibly a species of Capparis. In December last I bred many examples of this butterfly from larvæ found upon a similar shrub, at Port Moresby, New Guinea, This species, I believe, has not before been recorded from Australia.

Elodina. Sp. A pair.

Terias hecabe. Common, flying about a pretty kind of vetch.

Callidryas crocale. A male and female, in fine condition, were captured.

Lycena. Sp. Very numerous, flying about a leguminose plant. (See remarks in body of paper.)

Lycena platissa. Flying with above, but scarce.

Lycana cnejus. Not common.

Lycana. Sp. A very distinct species, and unlike anything I have yet seen from Australia. It was apparently only just coming out, for I only caught three—two males and a female—and they were in very perfect condition.

Precis zelima. Several.

Hypolimnas lasinassa. Several.

Ismene exclamationis. Several.

Pamphila angiades. Common.

Apaustus agraulia. Common.

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Heterocera.

Pachyarches psitticalis. Only one example of this lovely peagreen Pyrale seen and captured.

Notarcha multilinealis. I did not see this in the perfect state, but bred two from larvæ taken feeding in curled up leaves of Hibiscus. It is a widely spread and very abundant species, occurring upon all the islands that I have visited.

Xinkenia recurvalis. Abundant amongst low herbage. This species appears to be cosmopolitan, for I have taken it in all parts of the world I have been to, except the extreme north.

Siriocanta testulalis. Common. I also bred one from a larva feeding in a head of *Mentha*? This is likewise a universally distributed species among the islands, and I have taken it near Sydney.

Pachyxancla mutualis. Common.

In addition to the above I captured several species of *Micro-Lepidoptera*, which are quite new to me.